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Term: 12 and L4

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(register\$3 same destination same network parameters same member same network same trading arbiter) and (trading server same buy order same sell order same ip bandwidth) and (matching same sell orders same buy same trading results) and border gateway	1

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L1

(register\$3 same destination same network parameters same member same network same trading arbiter) and (trading server same buy order same sell order same ip bandwidth) and (matching same sell orders same buy same trading results) and border gateway

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L1

END OF SEARCH HISTORY

Detail Description Paragraph:

[0041] It is contemplated that two or more IP bandwidth trading exchanges may be connected to each other to form a single virtual exchange by, for example, an optical multiplexer or other intra-exchange wide-area-network (WAN) connections. That is, a first trading server may be connected to member routers in a first internet exchange and a second trading server may be connected to member routers in a second internet exchange. The second trading server may comprise an IP trading platform having an order database for saving the buy and sell orders and an IP quality database for saving IP traffic profiles of members determined by route analysis, each of the buy orders and sell orders including a destination network parameter. The first trading server may match buy and sell orders based on the destination network parameter from its own order database and the order database in the second trading server.

CLAIMS:

1. A method for trading IP bandwidth in an exchange system comprising a trading server and a trading arbiter connected to a trading switch, said method comprising the steps of: a. registering one or more destination network parameters of each member's network with a trade route registry, accessible by the trading arbiter, in order to facilitate the identification of a member's routes. b. receiving, at the trading server, buy orders and sell orders from respective buying and selling members for IP bandwidth and storing the buy orders and sell orders in an order database, each of the orders including a destination network parameter; c. matching buy and sell orders based on the destination network parameter and generating a list of one or more matched buy and sell orders as a trading result; and d. communicating by the trading server the trading result to the matched buying and selling member networks using border gateway protocol announcements so that said matched buying and selling member networks may configure their routes between the matched buying and selling members.

15. The method of claim 1, wherein said step of updating comprises updating border gateway protocol announcement for the member routers of the members by the member in response to information about the trading result received from the trading arbiter.

17. An exchange system for trading IP bandwidth, comprising a trading server connected to a switch, said switch being connectable to member routers for receiving buy and sell orders for IP bandwidth from the member routers of members, said trading server comprising a trading platform having an order database for storing the buy and sell orders and a quality database for storing quality characteristics of member networks determined by route analysis, each of the buy orders and sell orders including a destination network parameter, and said trading server generating trades by matching buy orders and sell orders based on the destination network parameter; and a trading arbiter to register and store member IP address prefixes of the member routers and to implement the trades.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWOC	Draw D
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(register\$3 same destination same network

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☐ 1. Document ID: US 20040042596 A1

L1: Entry 1 of 1

File: PGPB

Mar 4, 2004

DOCUMENT-IDENTIFIER: US 20040042596 A1

TITLE: System and method for IP bandwidth trading

Summary of Invention Paragraph:

[0005] The public Internet (the Internet) is a worldwide roughly hierarchical connection of Internet Service Provider (ISP) networks that are connected to millions of computer and computing devices. Each computer or computing device, i.e., end device, is connected to an ISP network. The interconnection of the ISP networks allows each ISP network to connect to a number of other ISP networks and define preferences for incoming and outgoing data traffic on these connections. The protocol used to support these interconnections is called Border Gateway Protocol (BGP).

Summary of Invention Paragraph:

[0007] The present invention provides, in a preferred embodiment, a method for trading bandwidth among members of a trading exchange system comprising a trading server, a trading arbiter and a trading switch. The trading arbiter collects IP address identifiers, such as IP prefixes, from trading member routers for facilitating the transmission of telecommunications traffic to certain routes of a trading member's network. The trading server receives from trading members buy orders and sell orders (i.e. bids and asks) for IP bandwidth. Each of the orders may include a destination network parameter, price and/or quality parameters, and the effective period of the bids and asks associated with a particular destination or route. The buy orders and sell orders are stored in an order database and are matched periodically according to specified business rules on the basis of one or more of these parameters. In one embodiment, a buying member may select one or more routes from a set of matched buy and sell orders, and update its routers using, for example, the border gateway protocol metrics or announcements so as to permit the transmission of IP or telecommunication traffic to the offered routes of the matched selling member's network.

Summary of Invention Paragraph:

[0010] The present invention also provides a system for trading IP bandwidth including a trading server and a trading arbiter connected to a switch. The switch is connectable to member routers for receiving buy and sell orders for IP bandwidth from the members. The trading server includes an IP trading platform for matching buy and sell orders, an order database for storing the buy and sell orders, and a quality parameter database for storing IP traffic profiles including quality characteristics of member networks determined by route analysis. Each of the buy orders and sell orders includes a destination network parameter and other suitable parameters, and said trading server matches buy orders and sell orders based on the destination network parameter and other specified parameters.

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